

Patent  
2024071-7005362002

AMENDMENTS TO THE CLAIMS

Please amend claims 1, 26, 35, and 41, as follows. A complete listing of the claims is provided below.

1. (Currently Amended) An auditory test instrument, comprising:

a plurality of speakers comprising at least three speakers;

a microphone; and

an audiometer coupled to said microphone and said plurality of speakers, said audiometer configured for performing auditory diagnostic tests, for emitting sound through each of said plurality of speakers, and for calibrating individuals of said plurality of speakers based on said emitted sound received by said microphone ~~to compensate for environmental differences;~~

wherein said audiometer is configured for calibrating individuals of said plurality of speakers to compensate for an environmental effect.

2. (Previously Presented) The auditory test instrument of claim 1, wherein said audiometer comprises:

at least one test probe;

a diagnostic subsystem coupled to said at least one test probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;

input means adapted to accept commands from a user;

a display adapted to display results from said at least one auditory diagnostic test; and

at least one processor coupled to said diagnostic subsystem and to said input means.

Patent  
2024071-7005362002

3-18. (Cancelled).

19. (Previously Presented) The auditory test instrument of claim 1, wherein said plurality of speakers comprises at least five speakers.

20. (Cancelled)

21. (Previously Presented) A method of calibrating an auditory test instrument, comprising:  
coupling a plurality of speakers to an audiometer;

coupling a microphone to said audiometer;

automatically emitting a plurality of frequencies and timing signals through each of said plurality of speakers, wherein said automatic emitting step is controlled by said audiometer;

automatically calculating speaker levels and timing delays for each of said plurality of speakers, wherein said automatic calculating step is controlled by said audiometer; and

automatically calibrating individual speakers with a multi-band equalizer, wherein said automatic calibrating step is controlled by said audiometer and wherein said multi-band equalizer is integrated into said audiometer.

22. (Previously Presented) The auditory test instrument of claim 1, wherein said environmental differences comprise differences in environmental acoustics and/or speaker placement.

23. (Previously Presented) The auditory test instrument of claim 1, wherein said audiometer is configured for calibrating said plurality of speakers by obtaining proper individual speaker level settings and/or time delays.

Patent  
2024071-7005362002

24. (Cancelled)

25. (Previously Presented) The auditory test instrument of claim 1, wherein said audiometer is configured for emitting a plurality of frequencies and timing signals through each of said plurality of speakers, and said audiometer comprises a multi-band equalizer configured for calibrating said individual speakers.

26. (Currently Amended) A method of calibrating an auditory test instrument, comprising:  
arranging a plurality of speakers within a testing room remote from an intended listener/patient position, wherein said plurality of speakers comprises at least three speakers;  
coupling said plurality of speakers to an audiometer, wherein said audiometer is configured for calibrating individuals of said plurality of speakers to compensate for an environmental effect;  
coupling a microphone to said audiometer;  
emitting sound through each of said plurality of speakers;  
receiving said sound with said microphone; and  
calibrating individuals of said arranged plurality of speakers based on said received sound.

27. (Previously Presented) The method of claim 26, wherein said speaker arranging comprises:  
arranging a first pair of speakers in front of and to either side of said listener/patient position;  
arranging a second pair of speakers behind and to either side of said listener/patient position;  
and  
arranging a speaker directly in front of said listener/patient position.

Patent  
2024071-7005362002

28. (Previously Presented) The method of claim 26, wherein said plurality of speakers is automatically calibrated by said audiometer.

29. (Previously Presented) The method of claim 26, wherein said plurality of speakers is calibrated to compensate for speaker misplacement.

30. (Previously Presented) The method of claim 26, wherein said speaker calibrating comprises obtaining proper individual speaker level settings and/or time delays.

31. (Cancelled)

32. (Previously Presented) The method of claim 26, further comprising positioning said microphone at said intended listener/patient position.

33. (Previously Presented) The method of claim 26, wherein:  
  
said sound emitting comprises emitting a plurality of frequencies and timing signals through each of said plurality of speakers; and  
  
said individual speakers are calibrated with a multi-band equalizer.

34. (Previously Presented) The method of claim 26, further comprising operating said audiometer to perform auditory diagnostic tests.

35. (Currently Amended) An auditory test system, comprising:  
  
a testing room;

Patent  
2024071-7005362002

a plurality of speakers arranged within said testing room remote from an intended listener/patient position, wherein said plurality of speakers comprises at least three speakers;  
a microphone located within said testing room; and  
an audiometer coupled to said microphone and said plurality of speakers, said audiometer configured for performing auditory diagnostic tests, for emitting sound through each of said plurality of speakers, and for calibrating individuals of said plurality of speakers based on said emitted sound received by said microphone;

wherein said audiometer is configured for calibrating individuals of said plurality of speakers to compensate for an environmental effect.

36. (Previously Presented) The auditory test system of claim 35, wherein said audiometer comprises:

at least one test probe;  
a diagnostic subsystem coupled to said at least one test probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;  
input means adapted to accept commands from a user;  
a display adapted to display results from said at least one auditory diagnostic test; and  
at least one processor coupled to said diagnostic subsystem and to said input means.

37. (Previously Presented) The auditory test system of claim 35, wherein said plurality of speakers comprises a first pair of speakers in front of and to either side of said listener/patient position, a second pair of speakers behind and to either side of said listener/patient position, and a speaker directly in front of said listener/patient position.

Patent  
2024071-7005362002

38. (Previously Presented) The auditory test system of claim 35, wherein said audiometer is configured for calibrating said plurality of speakers by obtaining proper individual speaker level settings and/or time delays.

39. (Cancelled)

40. (Previously Presented) The auditory test system of claim 35, wherein said audiometer is configured for emitting a plurality of frequencies and timing signals through each of said plurality of speakers, and said audiometer comprises a multi-band equalizer configured for calibrating said individual speakers.

41. (Currently Amended) An auditory test instrument, comprising:

a plurality of speakers comprising at least three speakers;

an audiometer coupled to said plurality of speakers, the audiometer configured for performing auditory diagnostic tests; and

a test probe coupled to said audiometer, said probe having a memory for storing probe calibration and/or probe configuration information;

wherein said audiometer is configured for calibrating individuals of said plurality of speakers to compensate for an environmental effect.

42. (Previously Presented) The auditory test instrument of claim 41, wherein said audiometer is configured for calibrating said plurality of speakers.

Patent  
2024071-7005362002

43. (Previously Presented) The auditory test instrument of claim 41, wherein said audiometer comprises:

a diagnostic subsystem coupled to said probe, said diagnostic subsystem adapted to implement at least one auditory diagnostic test;

input means adapted to accept commands from a user;

a display adapted to display results from said at least one auditory diagnostic test; and

at least one processor coupled to said diagnostic subsystem and to said input means.

44. (Cancelled)

45. (Previously Presented) The auditory test instrument of claim 41, wherein said probe is configured for automatically communicating said calibration data to said audiometer upon coupling said at least one probe to said audiometer and providing power to said audiometer.

46. (Previously Presented) The auditory test instrument of claim 41, wherein said probe is configured for automatically communicating said probe configuration data to said audiometer, and wherein said audiometer is configured for automatically selecting at least one auditory diagnostic test in response to said probe configuration data.